

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): A recording-medium cartridge which stores a recording-medium and a cartridge memory, wherein

the cartridge memory which holds a unique cryptographic key in the condition that the rewrite of the cryptographic key is forbidden is detachably attached to the recording-medium cartridge, and wherein

the recording-medium holds a CRC-code, which is generated based on the cryptographic key and data to be recorded on the recording-medium, in the condition that the CRC-code is correlated with the data.

2. (original): A recording-medium cartridge according to claim 1, wherein
the CRC-code and data are recorded on the recording-medium in the condition that the CRC-code and data adjoin with each other.

3. (currently amended): A recording-and-reproducing apparatus which performs a recording-and-reproducing of data ~~against the~~ on a recording medium housed within a recording-medium cartridge of claim 1, the recording-and-reproducing apparatus comprising:

a CRC-code generator, which generates a CRC-code based on a cryptographic key, which is obtained from a cartridge memory detachably stored in the recording-medium cartridge, and data entered from an external device, when performing a recording of the data on the recording-medium, and

the CRC-code generator generates a reference CRC-code based on a cryptographic key, which is obtained from the cartridge memory, and data obtained from the recording-medium, when performing a reproducing of the data recorded on the recording-medium;

a CRC-code recorder which records the CRC-code on the recording-medium when performing the recording of the data on the recording medium;

a CRC-code comparator which compares the reference CRC-code generated by the CRC-code generator with the CRC-code obtained from the recording-medium, when performing the reproducing; and

a reproducing controller which determines whether or not to allow the reproducing of data recorded on the recording-medium based on the comparison result of the CRC-code comparator.

4. (currently amended): ~~A-The recording-and-reproducing apparatus which performs a recording and reproducing of data against the recording-medium cartridge of claim 2, the recording-and-reproducing apparatus comprising according to claim 3,~~

~~a CRC code generator, which generates a CRC code based on a cryptographic key, which is obtained from a cartridge memory stored in the recording medium cartridge, and data entered from an external device, when performing a recording of data on the recording medium, and~~

~~—— the CRC code generator generates a reference CRC code based on a cryptographic key, which is obtained from the cartridge memory, and data obtained from the recording medium, when performing a reproducing of data recorded on the recording medium;~~

~~a CRC code recorder which records the CRC code on the recording medium when performing the recording;~~

~~a CRC code comparator which compare the reference CRC code generated by the CRC code generator with the CRC code obtained from the recording medium, when performing the reproducing; and~~

~~a reproducing controller which determines whether or not to allow the reproducing of data recorded on the recording medium based on the comparison result of the CRC code comparator.~~

wherein the CRC-code and data are recorded on the recording-medium in the condition that the CRC-code and data adjoin with each other.

5. (currently amended): ~~A~~ The recording-and-reproducing apparatus according to claim 3, wherein

the recording-and-reproducing apparatus has a unique identification number, and wherein

the CRC-code generator generates the CRC-code based on the cryptographic key, the unique identification number, and data entered from an external device, when performing a recording, and

the CRC-code generator generates the reference CRC-code based on the cryptographic key, the unique identification number, and data obtained from the recording-medium, when performing a reproducing.

6. (currently amended): ~~A~~The recording-and-reproducing apparatus according to claim 4, wherein

the recording-and-reproducing apparatus has a unique identification number, and wherein the CRC-code generator generates the CRC-code based on the cryptographic key, the unique identification number, and data entered from an external device, when performing a recording, and

the CRC-code generator generates the reference CRC-code based on the cryptographic key, the unique identification number, and data obtained from the recording-medium, when performing a reproducing.

7. (original): A recording-medium cartridge according to claim 1, wherein the recording-medium cartridge is a magnetic tape.

8. (original): A recording-medium cartridge according to claim 2, wherein

the recording-medium cartridge is a magnetic tape.

9. (currently amended): ~~A~~The recording-medium cartridge according to claim 3,
wherein the recording-medium cartridge is a magnetic tape.

10. (currently amended): ~~A~~The recording-medium cartridge according to claim 4,
wherein the recording-medium cartridge is a magnetic tape.

11. (currently amended): ~~A~~The recording-medium cartridge according to claim 5,
wherein the recording-medium cartridge is a magnetic tape.

12. (currently amended): ~~A~~The recording-medium cartridge according to claim 6,
wherein the recording-medium cartridge is a magnetic tape.

13. (original): A recording-medium cartridge according to claim 1, wherein
the recording-medium cartridge is a magnetic disk.

14. (original): A recording-medium cartridge according to claim 2, wherein
the recording-medium cartridge is a magnetic disk.

15. (currently amended): A ~~The~~ recording-medium cartridge according to claim 3,
wherein the recording-medium cartridge is a magnetic disk.

16. (currently amended): A ~~The~~ recording-medium cartridge according to claim 5,
wherein the recording-medium cartridge is a magnetic disk.

17. (original): A recording-medium cartridge according to claim 1, wherein
the recording-medium cartridge is an optical recording tape.

18. (currently amended): A ~~The~~ recording-medium cartridge according to claim 3,
wherein the recording-medium cartridge is an optical recording tape.

19. (original): A recording-medium cartridge according to claim 1, wherein
the recording-medium cartridge is an optical recording disk.

20. (currently amended): A ~~The~~ recording-medium cartridge according to claim 3,
wherein the recording-medium cartridge is an optical recording disk.

21. (new): A recording-medium cartridge which utilizes electromagnetic induction to
exchange data with an external device in a contactless manner, the recording medium cartridge
comprising:

a cartridge memory which contains a unique cryptographic key where a rewrite of the cryptographic key is forbidden and the cartridge memory is detachably attached to the recording-medium cartridge;

a recording-medium which holds a cyclic redundancy check (CRC) code where the CRC code is generated with the cryptographic key and data to be recorded on the recording-medium, wherein the CRC-code is correlated with the data to be recorded.

22. (new): An apparatus for recording and reproducing data with a recording medium cartridge, the apparatus comprising:

a cyclic redundancy check (CRC) code generator which generates a first CRC code based on a cryptographic key obtained from a cartridge memory of the recording-medium cartridge and data entered from an external device when recording data on the recording medium of the recording medium cartridge, and generates a reference CRC code based on a cryptographic key obtained from the cartridge memory of the recording medium and data obtained from the recording-medium of the recording medium cartridge when reproducing data recorded on the recording medium of the recording medium cartridge;

a CRC code recorder which records the first CRC code on the recording medium of the recording medium cartridge when recording;

a CRC code comparator which compares the reference CRC code with the first CRC code obtained from the recording-medium of the recording medium cartridge, when reproducing the data recorded on the recording medium of the recording medium cartridge; and

a reproducing controller which determines whether the reproducing of the data recorded on the recording-medium is allowed based on a comparison result of the CRC-code comparator.